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INSTRUCTION MATERIAL FOR CIVIL DEFENSE COURSES IN EAST GERMANY

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FOREWORD

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INSTRUCTION MATERIAL FOR CIVIL DEFENSE COURSES IN EAST GERMANY

[Following is a translation of portions of Referentenmaterial fuer die Aufklaerung der Bevoelkerung im Luftschutz (Instruction Material for Civil Defense Courses in East Germany), East Berlin, Ministry of the Interior Publishing House, Civil Defense Command, March 1959, pages 1-4, 10-23 (Subject 1), pages 1-23 (Subject 4)]

Program

for the instruction of workers and employees in the socialized sector of industry and agriculture, members of the state apparatus, and the members of colleges, trade schools, secondary and primary schools, in 1959.

1. The importance of civil defense for the protection of life and property -- The tasks of civil defense and its organization in industry 2 hours
2. Description of nuclear weapons and possibilities of protection 4 hours
3. Chemical and biological weapons and possibilities of protection against them 2 hours
4. Collective and individual means of protection. . . 2 hours
5. What the population must do in case of civil defense warnings and measures to be taken along civil defense lines in factories, installations, and residential areas. 2 hours

Objective of the lecture:

1. Listeners are to be informed about the urgency of developing a civil defense in the German Democratic Republic, of its importance as well as of the possibilities of taking part in it.
2. The workers must be brought to participating actively in the realization of civil defense measures in their respective places of work.

Structure of the lecture:

- I. The need for and importance of civil defense in the German Democratic Republic
- II. The tasks of civil defense for the protection of life

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and property

III. Opportunities for every citizen to participate in civil defense

IV. Summary

Directions for instructors

II

The Tasks of Civil Defense for the Protection of Life and Property

The development of civil defense in our republic constitutes a significant contribution to increasing the defensive strength of our workers' and peasants' state. As all our other security measures so will also the development of civil defense in the German Democratic Republic strengthen the forces of peace.

The main task of civil defense, as stated in the law on civil defense in the German Democratic Republic, is to "guarantee effective protection of the population, the towns, communities, enterprises, the installations and objects which are important for satisfying vital needs of the population, and of cultural values, against consequences of attacks from the air, and to repair or relieve damage caused by such attacks."

The more rapidly and comprehensively we carry out socialist development and organize the protection of our home and our life, the more unambiguously we shall demonstrate to the imperialist aggressors the pointlessness of any possible military adventure, while we are contributing, thereby, to the maintenance of peace.

Whoever loves his life and does not want to expose himself and his loved ones to nuclear death, lest our socialist accomplishments are destroyed by the torches of war, must be prepared actively to protect our workers' and peasants' state, i.e., all that which he himself has helped to create.

In order to be able to help in this, to be able to organize and carry out protection measures against the consequences of aerial attack, one must know of the possibilities that exist. In 1959, a foundation is to be laid on questions of civil defense through our 12-hour training, which includes a total of five subjects.

Each one of us must make every effort, in his own interest, in the interest of his family, of defending his place of work, in the interest of safeguarding our workers' and peasants' state and of the victory of socialism, to come to these lectures. This year, we shall give you the basic information on

1. the characteristics of nuclear weapons and the possibilities of protection against their effects;
2. the characteristics of the chemical and biological weapons and the possibilities of protection;
3. the collective and individual means of protection; and
4. air-defense preparation of dwellings and on what to do in case of civil defense warnings.

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In this process, we will do away with the opinion -- widespread as it is -- that there is no protection against atomic weapons, as the atomic bomb dropped on Hiroshima allegedly has proven. Rather, we shall come to see that there are possibilities of protection and that it pays to make use of them.

The effects of the atomic detonation at Hiroshima were so very terrible especially because the civilian population of the city had no means of protection against it. Without having been warned by any warning system, the workers of that city were at their jobs, on the forenoon of that 6 August 1945, the women in the apartments, in the stores or in the streets, the children in school or on play-yards. No one knew of the existence, let alone the effects, of such a dreadful weapon. No one had an idea of the consequences, of a protection against them, or of what to do in case of nuclear explosion. No one knew that the air burst constituted the greatest danger for the people and that the radiation caused innumerable big fires. But above all, no one knew of the dangers of radioactive rays and the radioactive contamination of the area.

Because of this ignorance, furthermore, rescue crews rushing in from outside the area also suffered severe injuries (partly with lethal effects later) because they had been exposed to invisible and unknown radioactive radiation. Thus the people had been caught in total ignorance about the effects of the detonation. Their houses, mainly built of bamboo, wood, and other combustible materials, could not withstand the pressure of the detonation or the spreading fire. In fact, the dry wood fed the fire and made it spread extremely fast. This too made thousands lose their lives.

Successful therapeutic methods to cure radiation injuries were not known at this time either. No one knew what the symptoms of radiation injuries looked like. Thousands died whose lives could have been saved if they had received the right treatment in time. It is precisely this lesson of Hiroshima which teaches us how necessary it is to face up to the danger and to become familiar with the means and measures that exist for the protection from nuclear blasts.

The next lecture will give a detailed description of nuclear weapons and the possibilities of protection against them. At this point, we only want to mention that protection is possible also in case of atomic blasts.

Destructions caused by atomic bombs differ greatly from each other, from place to place. In the center of the blast, which measures only 0.5 to 1 percent of the area affected, all life is destroyed. But outside of this center, in the so-called B and C zones, which comprise 99 percent of the total area affected, possibilities to protect lives exist by means of the various protection measures.

Practical tests with atomic bombs of various calibers have shown that ordinary protective devices, such as tunnels, cellars, and properly covered entrenchments, remain standing if, in an atomic blast, they are located a certain distance away from the center of

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the blast, and that they offer a partial protection, as they have saved hundreds of thousands of lives in the last world war. In view of this, how people behave during aerial attacks is of decisive importance.

The Hiroshima example has shown that it already makes a difference whether a person is standing up straight or lying on the ground while he is exposed to the effects of an atomic blast. The latter were the less affected, as their bodies offered less resistance to the air burst. In cases where their feet pointed toward the blast center and their faces were on the ground, they also protected themselves from burns. This is a simple point everyone should remember in order to do the right thing under certain conditions during aerial attacks.

The following lectures will go into greater detail on what one must know to protect one's own person.

Whatever protects against the air burst essentially also protects against radiation. There are hills, tree trunks, walls, and covered trenches. Dark fabrics, which are pervious to light, increase the danger of injury from radiation, whereas light clothing, which reflects the radiation, offers some protection.

Protection against ionizing radiations is also possible. For instance, it is known that ionizing radiation, of which more than 50 roentgens would injure the health of a human body, is reduced by as much as half its effectiveness by means of a 14-cm layer of earth, a 12-cm layer of bricks, or a 25-cm layer of wood. This shows that even simple earthen embankments may reduce the effectiveness of radiation to a degree where it constitutes no health hazard. This will be further explained in the next lecture on the characteristics of nuclear weapons and possibilities of protection.

This year, we are chiefly concerned with the ABC weapons, i.e. with the atomic, biological, and chemical weapons, because the imperialist powers, in case of war, would not hesitate to use them. Means of protection and procedures applying to the ABC weapons also apply to conventional weapons such as demolition, incendiary and other bombs which are also likely to be employed.

Only a brief span would remain for alerting the population in any modern war, which we must try to avoid at all cost, what with the existence of long-range missiles and modern high-speed airplanes.

Within that span, men must reach shelters located at distances up to about 200 meters from where they live or work. For this reason one must primarily utilize the shelters available in plants and apartment houses and, if necessary, condition them along civil defense requirements and with the aid of all persons concerned.

There is no sense in establishing large shelters with capacities for thousands of people, as they were partly built during the Second World War in Berlin and other large cities, because getting into them would take a far longer time than would be available in a case of need.

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Such shelters must be erected primarily at places where many people, as in our plants, are densely crowded together.

You can imagine that for warning purposes, a far-flung warning system must be available. Today, one must be able to warn not only individual cities, as was the case in the Second World War, but whole areas, and do so suddenly, because a possible change of direction on the part of enemy aircraft would mean that such planes, after changing their direction, would be hundreds of kilometers off in a different direction in minutes and suddenly appear in an altogether different area. Small communities also, without being immediate targets of attacks or without being located in the immediate target area of an atomic or hydrogen bomb, may still be subjected to the effects of aerial attacks, especially to the danger of radioactive fallout.

Furthermore, the communities also face the danger that chemical and other weapons may be used. All these factors have to be considered if the demand stated in article 1, section 2 of the civil defense law, concerning a modern alert and warning system, is to be met. A close cooperation between civil defense and the active air force, therefore, is indispensable.

While it is the task of the active air force to repulse enemy aircraft, in concert with the most modern techniques of warfare, civil defense, the protective organization for the population and the industry, will be concerned with the effects of aerial attacks.

Civil defense is to be an effective protection against any possible imperialist air attacks. For that reason, we must even now, in times of peace, take all necessary measures.

III

Opportunities for Every Citizen to Participate in Civil Defense

Organizing a civil defense that is to be effective and truly secure requires the cooperation of the entire population. For that reason, every person can actively participate in carrying out the civil defense measures from his job at work, in the MTS, the LPG, the VEG, in the administration, at school, or from where he lives, each in accordance with his work experience and other abilities.

Comprising all sectors of public life, civil defense is confronted with manifold tasks. This permits manifold ways in which each citizen can cooperate. They are:

Industrial civil defense and extended self-protection;

Civil defense organization;

Volunteer organization and public civil defense.

1. Industrial civil defense and extended self protection

a) Industrial civil defense.

Industrial civil defense is set up in factories, larger plants and installations. All other plants and installations have an extended civil defense. Industrial civil defense has the following tasks:

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Creation of adequate measures of protection for workers, employees, or other persons who are temporarily present;

Preparation of the plants for raising their own safety conditions with respect to the conditions of aerial attack, from their own resources;

Carrying out of immediate rescue and repair work after aerial attacks so as to overcome their effects as rapidly as possible;

Finally, limiting the vulnerability of an establishment as much as possible.

The chief of an industrial civil defense is the incumbent director or head of the enterprise. He heads a civil defense staff which, under his direction and orders, organizes and supervises the civil defense measures which serve to prepare the enterprise and to organize and direct the ways and means available.

In all this, there are already certain prerequisites in all enterprises which we can utilize and on which we can build. The organization of rescue and aid measures for the elimination of damage through aerial attacks by means of utilizing all available ways and means, especially with regard to mass destruction weapons, requires trained civil defense personnel. There are qualified persons in all production plants, responsible for the protection of the life and health of the workers. Many workers have been trained in first aid, many of them belong to the German Red Cross.

Many plants have ambulance crews. They are units of the German Red Cross which will be enlisted in organized civil defense operations. They form a good basis for setting up intra-plant civil defense measures.

In addition to these operational units of the German Red Cross in the health sector there also exist within the plants plant fire fighting units. These units together with fire prevention devices insure the possibility of effectively fighting fires caused by aerial attacks.

There further are the disaster units, formed according to the decree of 4 February 1954. Industrial civil defense in its totality will make possible a much better way of fighting all disasters, including the results of aerial attacks.

All these measures, experiences, and devices must now be put to use and further developed for industrial civil defense.

As in case of plant accidents or fires speedy aid is required, so also must it be possible, even more possible, to treat casualties after aerial attacks or to remove them; and machines and equipment as well as persons who can operate them must be available to dig all those out who were buried under the debris.

The old demand for preventive fire protection to the effect that enough extinguishing fluid be available becomes even more important under the conditions of civil defense.

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In order to organize an industrial civil defense effectively it is necessary to form special units for the various functions of civil defense, always in accordance with the type of establishment, number of employees, and civil defense workers required. Every worker can be a member of one such civil defense unit, in accordance with his technical and non-technical know-how.

For instance, plumbers, turners, crane operators, and workers of other technical fields will participate in recovery and repair functions or in the technical services. Chemists will work in the chemical services, communications personnel in the news, warning, and alert system, women in the medical service, etc.

The most important services are:

1. Communication, warning and alert service,
2. Medical service,
3. Fire protection service,
4. Chemical service,
5. Rescue and repair service.

All services are under the unified jurisdiction of the manager of civil defense in the enterprise.

The communication, warning, and alert service controls the communication network through which the members of the enterprise are alerted and sets the conditions for a rapid and efficient employment of means available. In a special lecture we shall discuss what the population must do in response to civil defense signals and the measures that result from it.

The medical service grants the necessary aid to persons threatened or injured by aerial attacks. It also instructs all members of the enterprise on mass destruction weapons and protective measures. It furthermore undertakes a mass training program in first aid.

The fire protection service primarily organizes effective preventive fire protection within the enterprise under the conditions of civil defense. This includes the preparing of means and procedures for successfully extinguishing fires. In this, the support of the rescue and repair service in carrying out rescue and salvage operations is of special importance.

Decontamination of areas, buildings, rooms, clothing, water and food is the main task of the chemical service. This requires careful training and good equipment, for first aid for people who need no medical attention also is a function of the chemical service.

Of great importance is the rescue and repair service. Its main tasks are to release persons, animals, and material goods trapped beneath the debris in the affected area; these are its main and most important tasks. Coping with the danger of collapsing buildings and removing damaged structures calls for courageous workers who have to have special qualifications, thorough and careful training, and good technical equipment.

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Every enterprise has had its experience with protective devices. Such experiences made by workers, foremen and engineers form the foundation for getting set for civil defense measures within the enterprise. They will also come in handy whenever technical measures with regard to communication, lines, and networks are called for in the plant, when enough water, sand, and power must be provided after aerial attacks.

No one can of course know in advance whether the civil defense personnel and equipment within a plant will be adequate to fighting the results of an aerial attack. This requires additional well-trained persons who are equipped with the most up-to-date technical equipment in their specialties. They are trained in the services and units of the civil defense organization which are brought into play, in an organized fashion, under central direction.

It is easy to see that for furnishing food there also must be a food supply service. For transporting food as well as the wounded and persons evacuated from their homes there must be a well functioning transportation service with adequate fleets of motor vehicles.

In rural areas, the veterinary service has an important function in protecting and maintaining livestock.

All last-named services will support the work of the various services within the plant. Apart from the various services within the enterprises there are thus also created services and units on county and district basis which are under the jurisdiction of the civil defense chief of any given area.

b) Extended self-protection

Extended self-protection has to be organized in all public buildings, installations, and establishments, such as administration buildings, stores, etc., in establishments which are normally unguarded or uninhabited.

Hospitals, clinics, old-age homes are part of extended self-protection and so are larger educational and cultural establishments, such as theaters, museums, movie houses, universities, high schools, schools and seminaries, holiday-homes, hotels, inns, etc.

The head of each enterprise, administration, etc. is in every case responsible for carrying out the necessary measures within the extended self-protection.

The tasks of the extended self-protection are identical with those of civil defense in enterprises described above. Personnel for the over-all commands to be formed in the extended self-protection is to be recruited from the labor force. They carry out all the civil defense measures described thus far within their respective areas.

2. The organization of volunteer civil defense workers

In the decree of 11 February 1958 concerning the forming of an organization of civil defense volunteers and to the statute which became effective on 1 January 1959, this organization is mainly

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concerned with the direct support of the population in setting up a civil defense. In this, the organization has the task to inform and train the population in residential districts pertaining to the dangers and the measures that must be taken in case of aerial attack from the imperialist powers, and to organize self-protection.

The organization of civil defense volunteers is set up in the districts, towns, boroughs, and communities. To implement the copious tasks to which the organization is committed, executive groups, in forms of committees, of the organization of civil defense volunteers are set up, based on the functional areas of the National Front, in the districts, towns, boroughs, and communities.

The committees are to direct the implementation of the tasks of the organization of civil defense volunteers, following the orders of the authorized chief of civil defense -- the chairman of the district council or the mayor -- and recruit additional civil defense volunteers into the organization who will participate as instructors in all aspects of informing and training the population and of organizing, developing, and directing self-protection.

The organization of civil defense volunteers will inform the population in close cooperation with the committees of the National Front and of the existing mass organizations, above all the Free German Trade Union Federation, the Free German Youth, and the Democratic Women's League of Germany. If possible, all citizens of our republic are to be enlisted in the tasks of civil defense and many helpers are to be recruited. The training is to be carried out in close cooperation with the volunteer fire department and the German Red Cross.

Any citizen of the German Democratic Republic above the age of 14 who is willing to participate in the realization of the tasks of the organization, as instructor or teacher, as organizer or manager of the self-protection of the population, or in any other instructing capacity, can become a member of the organization of civil defense volunteers.

"Self-protection" is called that form of organization which serves the protection of one's own person, residence, house, and property against damage through aerial attack.

Self-protection is being organized in apartment house and settlement communities, in towns as well as villages. As managers of such communities, capable persons are being proposed by the organization of civil defense volunteers.

The manager has to:
inform residents about civil defense matters and emergency conduct;
advise and direct them in putting houses and farms in civil defense condition;
organize together with them joint facilities or temporary shelters;

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recruit self-protection personnel for fire fighting and first aid and organize their training;

assure civil defense discipline and blackouts.

In addition, special self-protection teams or groups are being set up in residential districts and the larger rural communities. They, together with the other self-protection workers and the population at large, direct first aid in a residential district. Working people, housewives, and high school students may join apartment house and settlement communities as well as self-protection teams.

In smaller rural communities, self-protection posts are set up. They mainly have the tasks of dispensing information and carrying out surveillance and they see to it that civil defense measures are observed. They are responsible to the communal civil defense chief. In these communities, fire protection, chemical protection, and the recovery and rescue of human life is up to the volunteer fire departments and the German Red Cross. The local chief of the People's Police and his volunteer helpers together with the self-protection post share the responsibility for order and safety. Furthermore, the organization of civil defense volunteers forms a veterinary team in all rural communities which is trained in conjunction with the veterinary service.

IV

Summary

In these remarks we have tried to show how necessary and important civil defense is. At the same time, we gave a general survey on the tasks and forms of organization of the civil defense. Now the whole point is not merely to announce one's agreement with these measures but actively to participate in organizing an effective civil defense. The numerous opportunities for each one of us have been explained. One may say in conclusion that all strata of the population can find a great field of application in civil defense.

Physicians, nurses, and hospital attendants can make great contributions in training the population in protective medicine and first aid and in organizing medical teams and operational units.

Locksmiths, construction workers, plumbers, electricians, engineers should consider important questions like putting houses into civil defense condition and in this way contribute toward informing and training the population in civil defense matters.

Our workers in socialized industry and agriculture, who day by day struggle to fulfill and overfulfill their quotas, are creating the prerequisites for happy living and well-being. Their protection from all dangers and possible attacks by imperialist countries is the task of our National People's Army, the People's Police and all security organs in close liaison with the workers. Many of them once wore the glorious uniform of the National People's Army; today they work at the work-table, in a laboratory, as tractor drivers,

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or in some other capacity, for socialist construction. Many have come to see that our peaceful construction work, if it has to be, must be defended with arms against all attacks of the imperialists.

The German Democratic Republic, bordering directly on the imperialist camp, must be especially vigilant and must have reliable protection. To it, a conscientious organization of civil defense in the enterprises is an essential contribution.

As our workers have made their enterprises into formidable fortresses in the building of socialism, so also must now the building of industrial civil defense and of extended self-protection that protect these fortresses stand under the motto: "Take part in planning, in working, and in governing!"

Many workers are women. Their work in the enterprises and administrations is exemplary. They have proven in daily life that they can handle many functions under the conditions of perfect equality.

Especially our women know that one must fight against war and, in doing this, make great sacrifices. Many women said during the last war: "Rather eat dry bread than have another war." The women will understand best that it counts to help, as best one can, in making the protection of our republic as complete as possible.

We are convinced that these remarks have improved your understanding of some of these matters. We shall instruct you in subsequent lectures, as was mentioned before, mainly about possibilities of protection against atomic weapons and other practical civil defense matters.

In the meantime, you may approach the civil defense chief of your enterprise if you have any questions or suggestions pertaining to civil defense. He and his staff, in connection with the civil defense command, will reply to you.

Each and every one must consider it his duty as a citizen of our workers' and peasants' state to participate actively in carrying out civil defense measures for the protection of our republic. Here too the slogan applies: "From each a good deed for our common socialist cause."

Direction for Instructors:

1.) Methodology

Instructors are advised to watch the following aspects during the lecture:

If the lecturer does not understand any part of the presentation (concepts) as presented by the instructional material available to him, he should be advised to inquire from civil defense organizations about such parts.

In studying (preparing) the material, charts concerned are to be consulted.

Certain difficult arguments or presentations are to be repeated.

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A study session is to last 50 minutes; after that there should be a 10-minute break. At the beginning of a subject, the structure of it is to be announced.

During his lecture, the instructor should permit no interruptions. Questions are to be answered at the end of a session.

When questions are asked by students, the following should be observed:

a) The instructor should answer only questions in which he is versed; he should refrain from guesswork.

b) When things are not clear, the instructor should get a clarification from civil defense authorities. When explanations, references, corrections, etc. have to be given, they may be posted in enterprises, administrations, schools, etc., on bulletin boards or given through the intercom system.

2.) Bibliography

a) Law on Civil Defense and decree on forming "Organization of Volunteer Civil Defense Workers", as of 11 February 1958, promulgated in GBl., Part 1, pages 121-124 and

Decree on the Statute of the Organization of Volunteer Civil Defense Workers, as of 24 November 1958, promulgated in GBl., Part 1, pages 869-872.

Reprinted DIN A 7, as a brochure, and published by the Ministry of the Interior Publishing House.

b) Issues 1 and 2, 1958, Section Military Policy of the Society for the Dispensation of Scientific Knowledge (Gesellschaft zur Verbreitung wissenschaftlicher Kenntnisse).

Objective of the lecture:

1. Listeners are to be made familiar with collective and individual means of protection and they are to be shown that the means of protection of the Second World War still have not lost their importance in case of possible employment of ABC weapons.
2. The lecture is to suggest to the listeners practical means of participating in the development of collective and individual means of protection so that they will find it possible to work for civil defense already now, in times of peace.

Structure of the lecture:

- I. Introduction
 - II. Collective means of protection
 - III. Individual means of protection
 - IV. Concluding remarks
- Directions for instructors

I

Introduction

In the previous lectures we dealt with a number of fundamental civil defense problems. We heard about the effects of atomic, biological, and chemical weapons and understood the need and the possibility for an effective civil defense in the German Democratic Republic.

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You have already become familiar with a number of protective means in the various lectures. Today, we wish to treat especially the subject "Collective and individual means of protection." You might raise the question whether it is altogether necessary to devote any time and effort to such measures, time and effort to such measures, time and effort which we would want to devote, without any limitation, to our socialist construction program, in view of the great assignments confronting us for 1961. Above all, our vast chemistry program is supposed to contribute to creating bread, well-being, and happiness for our people to an extent not known before. Happiness and well-being, bread and peace for all. Who would not wish to devote himself to that with all his strength? Who could possibly be interested in preventing us from it?

To answer this question, we only have to take a look at the American federal budget of 1958/59. While we do everything we can to assure for ourselves through peaceful construction a happy life with a high prosperity, there appears in the American federal budget a military budget larger than anything ever seen before. It calls for 40.8 billion dollars in 1958/59 in a total budget of 77 billion dollars. For 1959/60, as much as 45 billion dollars of the total budget of 77 billion, or almost 60 percent, are allocated for military purposes.

This sum exceeds any previous military expenditures in the US. According to the former American president Roosevelt, annual war expenditures during the Second World War amounted to about 35 billion dollars. Thus we see that the US imperialists are putting 10 billion dollars more into armaments today, in times of peace, than during war years. Many billion dollars are being used today for making atomic, biological, and chemical weapons, billions that are to pay for the annihilation of life.

You probably learned from newspapers and the radio at the end of 1958 how serious were the consequences of using such weapons in maneuvers, as did the US occupation army in West Germany. For kilometers, the wind blew chemical warfare materials into the surroundings of the American troop training grounds at Baumholder near Kaiserslautern and poisoned our countrymen. And this was only an exercise!

Why do the imperialists make these weapons and why are such maneuvers being held?

Only because the imperialist powers are preparing themselves for the day when these means of mass destruction are to be used against the socialist countries.

But we know that the socialist states threaten no one but concentrate all their strength on peaceful economic competition with capitalism. The best proof of this is the magnificent program of the 21st CPSU Party Congress.

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Knowing this to be a real program, the imperialists are trying to disturb the continuous progress of the socialist countries and to terrify us with their "policy on the brink of war."

Until now, they have not been able to unleash a Third World War because they know full-well that the forces of peace under the guidance of the Soviet Union are strong enough to deal any aggressor a fatal blow. Yet we must be aware of the unscrupulous cunning of these enemies of mankind who, for the sake of their profits, produce atomic as well as biological and chemical means of mass destruction whereby to destroy humans, animals, and their foods. In cold cynicism they claim that there are too many people on the earth, which requires to reduce their number. While former wars did not accomplish this, the possibility now exists in the means of mass destruction.

As early as 1946, the American "scholar" Gerald Went announced that the population could be destroyed by bacterias without municipal buildings, port installations, and means of transportation suffering any serious damage.

As he explained further, production plants can, completely unimpaired, fall into the hands of the enemy. In his view, a future world war could be started successfully with bacteriological means without any declaration of war preceding. No mammoth plants are needed for it, he said, for the fatal materials required are minimal in quantity compared to what is needed to make artillery shells.

These words from a man who calls himself a "scholar" reveal all the cruelty of the imperialist war plans. They show us that we must not stop fighting against the realization of such plans and their originators.

But for the emergency when the enemies of mankind as a last resort reach for those horrifying means of mass destruction, we also must think of our protection and thoroughly organize the measures required for it.

In order to solve this vital problem, we must become familiar with the means of mass destruction of the enemy and know how to protect ourselves against them.

II

Collective Means of Protection

Today we are getting started on the subject of "collective means of protection." Before we explain the various concepts, let us first of all examine which assault weapons are at the present time available.

During the Second World War, mainly high-explosives, incendiaries, and aerial mines were used against German cities. For the largest part, we know these assault weapons from our own experience. Of these types of weapons, especially the incendiaries were further developed. The US imperialists, e.g., dropped napalm-bombs for the first time in Korea. These bombs create larger fires than the phosphorus bombs of the Second World War and are, therefore, harder to extinguish.

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Weapons technology did not stop, however, and thus we have to expect in the case of war the use of nuclear weapons.

Already in our second lecture on "nuclear weapons and possibilities of protection" you were acquainted with these means of mass destruction. You learned, for instance, that nuclear weapons have the following effects:

1. Shock wave
2. Heat radiation
3. Ionizing radiation
4. Radioactive contamination

That these four effects are simultaneous, causing the most diverse kinds of destruction, makes the nuclear weapons so dangerous. You also learned that the target area is divided into several zones, the A, B, and C zones. The A-zone is the central point of the nuclear explosion amounting to about one percent of the entire target area, ground zero.

This zone is characterized by a total destruction of life. In the following zones B and C, which make up about 99 percent of the target area, the damage decreases relative to the distance from ground zero; in these zones, the preservation of human lives through organized civil defense is possible.

But you know that, in addition to the nuclear weapons, there are still biological mass destruction weapons and chemical weapons. Biological weapons were first employed by the US imperialists in Korea, and chemical weapons was employed by the Chiang Kai-shek clique in autumn 1956 against the Chinese mainland. These facts cause us more than ever to carry out a broad and effective information program about these weapons and the protection against them among our population. For it is in line with the humanist conceptions of our workers' and peasants' state to do everything possible for the protection of our people against destruction.

What is meant by collective means of protection, which experiences of them do we have from the Second World War, and to what extent are they still useful today?

Collective means of protection are called all installations which offer several people protection from conventional weapons as well as from the effects of nuclear explosions and chemical and biological weapons. To answer the second and third parts of the question, we must refer back to matters of the Second World War.

The cities had almost exclusively makeshift shelters in the basements of apartment and public buildings. These makeshift shelters saved millions of lives. Despite incessant air raids, which in the last war years the fascist leadership was practically unable to oppose by any active air defense, even in the cities under constant raids about 98 percent of the population stayed alive.

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Even though the amount of bombs dropped, in the years of 1944-1945, was twice as high, or in many cases even three times as high, as in 1942, the number of human casualties was not higher than it was in 1942.

Not it might be objected that these data are not compatible with the results of the raids on Dresden. But here we must consider the following:

No military air defense existed for the protection of the world-famous cultural and art center Dresden. At the time of the air raids on 13 February 1945 not a single German fighter took off for air combat, and no antiaircraft shot was fired. Besides, the number of shelters was much smaller than in other German cities of that size. The reasons for this are largely to be found in the fact that to the Fascists Dresden had no military importance, for which reason they paid very little attention to the protection of the inhabitants. A further complication lay in the fact that the center of the city was at that time crowded with refugees for whom not even the most primitive protective devices were available.

Although all this was known to the western imperialists, they attacked Dresden and its population three times in a row and each time with more than one thousand aircraft. The worst destruction in this was caused by a terrible gale of fire that developed. No one had counted on that because the danger of such a conflagration was minor owing to the predominance of brick buildings. The enormous amounts of phosphorus dropped, however, created such high temperatures that even asphalt roads were set aflame. From such a blaze, there was no escape. Many people simply suffocated with lack of oxygen.

Another, not insignificant, part of the casualties in Dresden was caused by the fact that people who managed to get into the so-called "Great Garden" or into the main roads leading out of the city were killed by the criminal fire from the aircraft weapons of the Anglo-American fliers.

Precisely the example of the Dresden raids clearly shows us of what cruelty the imperialists are capable. One more reason for the attack on Dresden by the Western allies was their intention to slow down the stormy advance of Soviet troops through destroying this communications center. Already the line is visible which they were going to pursue incessantly after the end of the war and which brought about the cold war against the socialist camp.

In conclusion one may say that the huge casualties in Dresden were caused by the facts that there was no military air defense and there were not enough shelters by far. But they can by no means be explained by the uselessness of means of collective protection.

Many citizens now ask whether the collective means of protection which became familiar in the Second World War also offer protection in the case of nuclear attack. To answer this question, let us

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consider, first of all, the dropping of the atomic bomb on Hiroshima. The first city in the world to be stricken by the explosion of an American atomic bomb, it can well show how important is the organization of protection against the terrifying effects of this bomb.

Hiroshima at the time only had the ordinary shelters from conventional weapons. Even at a distance of 300 meters from ground zero, a part of the shelter installations of concrete or steel concrete survived. As much as 50 percent of the covered entrenchments at this same distance were not destroyed or only got damaged insignificantly. At a distance of 800 meters from ground zero all covered entrenchments remained intact.

Under European building conditions, where hard brick buildings absorb the pressure, the effects of the shock wave would be further reduced. Against the shock wave of a nuclear explosion it is essentially the collective means of protection as they are known from the Second World War that give protection in the B and C zones.

Aircraft types used today reach very high speeds. Warning periods, therefore, are very short. Shelters must consequently be located not too far from where citizens who must take shelter happen to be. Makeshift shelters in apartment and public buildings as well as in industrial enterprises, therefore, are of very great importance. By makeshift shelters we mean all shelters found in basements of apartment and public buildings and of industrial enterprises erected, to the largest part, with makeshift means by the individual residential communities or labor force.

Now, which basements can be made into shelters?

First of all, the underside of a basement-ceiling should not project beyond one meter above the ground surface. We remember from the lecture on "nuclear weapons and possibilities of protection" that all structures projecting beyond the ground surface are more affected than those that are below the ground surface. The lower a basement, the better. Of course, one should also select basements that are surrounded by thick walls.

Since the load the ceiling may have to take is an important consideration, one must see to it that the various rooms are, if possible, not wider than four meters. The smaller the distance from wall to wall, the higher, as is well known, the supporting capacity of a ceiling.

Through the collapse of installations above ground, the regular basement entrances of a building may often be blocked up. This makes a second exit, or an emergency exit, especially important. On a secondary exit may depend the lives of all the people in the shelter. This should be taken into consideration whenever one first selects a shelter. Once a suitable room has been found, the ceiling must be made debris-proof, i.e., it is supported by wooden props,

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wooden support frames, brickwork posts, or partitions. All wall openings not needed as exits, such as basement windows and the like, are to be closed up. They may be walled up or sealed on both sides with boards and the gaps filled with sand or clay.

If the makeshift shelter has an outer wall, that wall must be banked with soil for the protection from ionizing radiation. When a shelter is erected in the center of a basement one must examine whether or not to strengthen the enclosing walls of the shelter with shock absorbers or horizontal reinforcements.

One must see to it that there are no main gas, water, or power lines in the makeshift shelter since damages such as a crack in the gas pipe can seriously imperil the users of the shelter.

As a protection against radioactive, chemical, and biological weapons, one must make the shelter as airtight as possible. That can of course not be achieved in all cases, but with some effort one can still get good results.

First one must fill or stop up all cracks in the walls, in the ceiling, or in the floor with loam, clay, or oakum. Larger openings, such as windows, doors, etc., require special attention. One should therefore try to install a solid, heavy wooden door at every entrance. It is covered with impregnated canvas or other impregnated or rubberized fabrics. The outside may also be covered with saturated plywood. The joints of the door are to be stopped up with clay. To seal the door rabbets one may use wooden or rubber strips or strips made of other packing material. If then the door is shut tight, one gets a relatively good airtight protection.

If one stays in such a shelter for several hours one will not be able to keep it hermetically sealed all the time because of the need for oxygen. One, therefore, should not lock oneself in as long as there is no "chemical alert." If a "chemical alert" is sounded, however, one must keep the door tightly closed.

For shelters occupied by more than 25 persons, the installation of a simple ventilating system is recommended.

Such a ventilating system consists of a sand or gravel filter the size of which should depend on the capacity of the shelter; any type of sand or gravel can be used with it. It is located outside the shelter, connected with it by a pipe. The air intake can be provided with a hand or machine-operated blower or simple bellows-type gadgets. Such contrivances protect from radioactive, chemical, and biological weapons. Their great advantage is that they can be made from the sand or gravel which is available almost anywhere. These ventilating systems are suitable to makeshift shelters in both apartment houses and enterprises. Civil defense organizations furnish details on designs and sizes.

Then there should be installed an air lock right behind the entrance door to a makeshift shelter. It consists of a small area, one to two square meters of floor space, right behind the

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the wooden door. A tightly sealed curtain separates it from the shelter. Its purpose is to make it possible to enter or leave the shelter even while the outside air is contaminated or poisoned.

A person entering the shelter first gets into the air lock. Radioactively contaminated or poisoned outside air may at worst permeate the small area of the air lock. The person affected by radioactive, chemical or biological weapons puts his outer garments into a closed container. Only then may he enter the shelter. In this way, only very little contaminated or poisoned air can enter.

The tightly sealed curtain consists of impregnated canvas or other impregnated or rubberized fabrics, possibly even of moist blankets. It is stiffened, inside and out, with strips and unrolls, on an inclined frame, from top to bottom.

(Show visual aid poster "Collective Means of Protection"

VI/2)

Secondary or emergency exits were already mentioned. All makeshift shelters should have emergency exits outside the debris area. By debris area one means half the height of a building up to the eaves plus an additional 3 to 5 meters. An emergency exit normally consists of a horizontal crawling tunnel which, outside the debris area, ends in a vertical manhole through which one can creep out into the open. If several makeshift shelters can be connected with each other, one joint emergency exit suffices.

The goal must be to develop these makeshift shelters later on into completely finished shelters. This, however, cannot be done on the spur of a moment and it also requires a lot of money. Complete shelters must, first of all, be built wherever there are many people together on one spot, as in enterprises or at certain main traffic centers in cities. Also in the construction of new dwellings and other buildings one should in the future contemplate, from the very start, the creation of shelters.

Now you might object that we could have saved time and money, had we not blown up the civil defense bunkers after Hitler's war. However, what precisely was the situation 14 years ago? When the Big Powers met in Potsdam it was decided to destroy the entire war potential of Hitler Germany, which included the civil defense bunkers. The US, England, and the Soviet Union together decided on this. But the Soviet Union was the only occupying power at the time, in East Germany, which -- together with the other antifascist - democratic forces -- carried out this decision. If one recalls those days today and asks oneself whether the Allies should have done it that way, all honest Germans must admit that it was necessary to destroy militarism and everything that had served its purposes and the purposes of the fascist was in order to prevent the danger of Germany's starting another war for all times. The current development of West

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Germany proves how right the decisions were at that time which, unfortunately, were not lived up to by the Western powers. For West Germany has meanwhile become the seat of a new war danger and the crucible for nuclear war in Europe.

In retrospect one will find that it was as proper and necessary at the time to blow up the bunkers, the remains of Hitler's war, as it is proper and necessary today to build up civil defense in the GDR.

As far as the bunkers are concerned, such enormous installations will hardly ever again be erected in our republic as were built during the last war (for instance as A.A. bunkers in Berlin at the zoo). For a modern war, the outbreak of which -- this must be emphasized again and again -- we seek to prevent as best we can, a bunker which would take people a long time to get to would no longer provide adequate protection. We already mentioned that, considering the speed of aircraft nowadays, only very brief spans can be assumed for alerting the population. In such a brief span of time, people must be able to get into shelters which are located in the immediate vicinity of where they live or work.

In apartment houses one may begin thinking about where in the basements makeshift shelters are to be installed if necessary. Certain materials to support structures or to close off wall openings, such as wooden boards, bricks, etc., which can be found lying around unused on many a yard, can even now be collected. Of course, the information given here can only be pointers. Therefore, cooperation is necessary, in any given case, with the organization of civil defense volunteers and the civil defense organizations so as to get from these places the expert advice and exact directions needed.

Of special importance are shelters in enterprises so as to protect citizens efficiently not only where they live but also where they work. To this end, enterprises are beginning, with the help of their labor force, to repair and further develop old shelters. On this, also some general hints is all that can be given because situations differ from enterprise to enterprise. In some enterprises it will be possible to establish makeshift shelters in the basement, as also in apartment and public buildings. To them, the preceding section is applicable. Some enterprises also have good and firm subterranean tunnels connecting the various workshops. They can be developed along the same lines as makeshift shelters. One can possibly also use subterranean canals, as e.g. cable conduits. But in such cases one must thoroughly examine ahead of time whether persons seeking shelter in them could not be endangered through any damage affecting a heating, gas, or water pipeline system.

One may say that there are innumerable possibilities for establishing makeshift shelters, even though they may not always be obvious and ready to be used. Individual initiative, for that reason, has decisive influence on any success one desires.

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In any given case one must try to create the best possible shelters by means of one's own material reserves and the help of the labor force. This confronts the civil defense of the enterprise or the extended self-protection with great tasks.

Wherever the possibilities discussed above for creating makeshift shelters do not exist one must find other ways and means. Apart from some enterprises this will frequently apply to rural areas. In such cases at the present time the best solution is digging shelter trenches.

During the Second World War, they were used to a limited extent and always fulfilled their purposes. On the lecture on "nuclear weapons and possibilities of protection" we already mentioned that shelter trenches can be used under conditions of atomic attack. In order to ensure that persons seeking protection can reach those trenches rapidly we recommend that the distance from where a person usually is to the trench not exceed 100 meters, if possible. When selecting a place for a shelter trench one must avoid coombs where the ventilation is poor or the underwood is heavy, because in such places radioactive, chemical or biological matter festers especially easily and lingers long. Geographic advantages, on the other hand, of ravines should definitely be utilized when there is good natural ventilation.

How to build shelter trenches.

(Show visual aid post "Collective Means of Protection"

VI/1)

First one must dig trenches 2 to 2.5 meters deep. Trenches like these are by themselves a protection against shock wave, short-term ionizing radiation, and heat radiation. Against radioactive, biological, and chemical weapons they offer no protection. Strong rain or other influences of the weather may render them unusable rapidly. Therefore one must see to it that the shelter trenches are supported and covered with wood fascines and finished concrete parts. Especially important is the support from thin concrete elements. A covered trench must have an embankment of 80 cm to 1 meter. This also provides protection from radioactive, chemical, and biological weapons.

Furthermore, as in the case of makeshift shelters, solid doors and air locks are needed. To keep rain water or contaminated or poisoned air from seeping through, the cover should contain a layer of clay (5 to 10 cm in thickness). Shelter trenches must be located outside the debris area of surrounding buildings so that they do not get covered up by debris. They must be built in serpentine form and have two entrances, perpendicular to the trenches. When selecting the location of the trenches one must see to placing them at a certain distance from gas and water pipes, cables and power lines, and depots with liquid and inflammable materials.

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These factors also have to be taken into consideration in enterprises. Their sites are often pierced to a considerable degree with supply lines or underground installations such as oil tanks. If poor sites are selected for shelter trenches, relatively minor damage can cause enormous casualties.

In cooperation with the experts concerned, the civil defense chief in an enterprise will decide at which spots emergency shelters or trenches are to be built.

In the southern districts of our republic, there are partly still old tunnels and caves. One also finds cellars and vaults in places cut into rocks, close to buildings. Such installations should by all means also be used provided their conditions are halfway decent and they are not too remote from human habitation. Such installations may offer excellent protection if they have an adequate rock or earth covering.

Thus even modest means permit us to build protective devices against the effects of nuclear weapons.

Concluding our remarks on collective means of protection we may say that they did fulfill their functions in the Second World War. The ones that were destroyed were the ones that got direct hits or near misses. One almost always has to count on stresses equal to direct hits or near misses, in case of nuclear explosion, for the A zone located around ground zero and amounting to about one percent of the total area bombed. In this zone, our present protective devices can be destroyed. But in the zones B and C, which together make up 99 percent of the affected area, the protective devices described here will hold. The reason for this is, mainly, that bulky beams or other parts of a building hold back some ruins of collapsing buildings and thereby virtually minimize the stress on the roof of shelters, so that it turns out to be lighter than anticipated. This can be proven by a test in the US. Several shelters were erected at a certain distance from point zero, for this nuclear detonation. After the detonation, a shelter braced with some lumber in a makeshift manner which was 2 km distant from point zero turned out to be hardly damaged at all; if people had been in it they would hardly have been injured. Makeshift shelters thus can offer considerable protection even from nuclear weapons and save many lives.

III

Individual Means of Protection

After having dealt with collective means of protection, we must now speak about individual means of protection.

Individual means of protection have the function to protect respiratory organs, eyes, and skin against radioactive, biological, and chemical weapons. They come in two groups: 1) Means of respiratory protection and 2) Means of skin protection.

Why do we have to discuss these individual means of protection?

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Because we always have to expect to be taken by surprise, by an attack from the imperialists in which they will use radioactive, biological, or chemical weapons. Not every person can then run for shelter. Also, it can be the case that a particular shelter is damaged and that, despite all security measures, radioactive, biological, or chemical agents enter. Therefore, every citizen must know about how to use individual means of protection and first aid.

As you know from the lecture "Chemical and biological weapons," chemical weapons of mass destruction were first used in the First World War.

On 22 April 1915, the German Army set off poisonous chlorine gas. Winds blew the gas cloud several kilometers deep into the French frontline sector. According to French reports, 5,000 soldiers were killed and 10,000 seriously poisoned.

By using this vicious chemical weapon, the Hague Rules of Land Warfare, which prohibit the use of poison gas, and which had also been signed by imperial Germany, were flagrantly violated. It trampled under foot the principles of international law.

While the death and injury of so many soldiers give us pause, we must also mention that the French soldiers were totally unfamiliar with the chemical weapon. They were thus facing this weapon without knowing anything of how to defend oneself against it and without gas masks.

Later on, the belligerent powers developed different types of gas mask which offered some protection. At the same time, both sides developed new chemical weapons and used them.

Although the dictated treaty of Versailles forbade imperialist Germany to contribute to the further development of chemical weapons, it has become public knowledge that, nevertheless, research continued on secret orders of the German general staff. When the fascists came to power, this research in Germany was utilized intensively for war preparations. The fascists charged German chemical trusts, especially IG-Farben among them, with the research on new weapons. Nor did they hesitate to test new chemical weapons on prisoners in concentration camps. Thousands of people were gassed in the gas chambers with the chemical weapon Cyclon-B.

The Italian fascists too, expecting no retaliation in kind, started using this weapon on the front lines in their aggression against Ethiopia. When the aggression began, the Italian general staff announced to the world that it had no intention of suing chemical weapons. Yet when the Ethiopian people fighting for its freedom did put up passionate resistance the fascists without compunction started the crime of chemical warfare. Late in 1935, the Italian Airforce dropped chemical bombs on Ethiopian cities, and in the frontlines the chemical weapon was also used.

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Again thousands of soldiers and civilians had to die because they were not acquainted with chemical weapons and their effects nor how to protect oneself from them. Up to the outbreak of the Second World War, the imperialist powers continued to develop feverishly the chemical weapons. Yet they were not used during the Second World War because none of the imperialist belligerents knew whether it could survive retaliatory measures by the enemy using the same weapon nor which new and still unknown poisons the opponent had available.

The further development of this treacherous weapon by the big imperialist powers after the Second World War as well as maneuvers held with chemical weapons during military training and the fact that the NATO armies are equipped with nuclear weapons make evident their intention to use in a war such weapons of mass destruction against the civilian population of the socialist states. For that reason, one must become familiar with individual means of protection.

In industry, as is well known, one has used protective devices against dangerous gases and vapors for some time. In the chemical industry, e.g., against benzine and benzol vapors, hydrocyanic vapors, nitro gasses, etc. And then there are jobs where laborers, for instance such as are exposed to dust from a sandblast unit, are protected by regulations which make them wear respirators, masks or even protective clothing.

The same thing holds true for radioactive, biological, and chemical weapons except that they can injure people much more seriously when they attack the organism or the skin. The experiences of industry in respiratory and skin protection are thus being further developed, and respirators and protective clothing are being made that protect against radioactive, biological, and chemical weapons. From the Second World War we remember gas mask S-30 for the army and the so-called "people's mask" for the civilian population.

What now is the protective characteristic of protective masks?
(Show visual aid poster "Individual Means of Protection"

VIII/3)

Protective masks normally consist of mask structures protecting respiratory organs, eyes, and the entire face from weapons. The protective mask prevents penetration of radioactive, biological, and chemical substances into the organism by means of a filter which is connected with the mask structure. The filter normally has several absorption layers. The filter purifies air contaminated by radioactive, biological, or chemical substances; purified (filtered), the air can then get into the respiratory organs.

Not every citizen will be able to get his protective mask at once. The supplying of masks will proceed, therefore, in stages.

But how can an individual protect himself from breathing in radioactive, biological, and chemical substances as long as he does not yet have his own mask? Is there any protection without a mask altogether? Yes, there is, even though that protection is only a stopgap.

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Let us look back at a time when protective masks did not yet exist. Even then, fire fighters in case of fire had to protect themselves from penetrating poisonous vapors. To put a handkerchief into the mouth was common practice, as a filter. An oral sponge was developed later, i.e., a moist, porous sponge was tied on the mouth and nose. This would retain the suspended particles of the smoke in the pores of the sponge.

Radioactive substances likewise consist of dust particles. They must be prevented from penetrating the respiratory organs. And so we must protect our respiratory organs with stopgap matters which will retain the suspended particles.

(Show visual aid poster "Individual Means of Protection"

VIII/4)

For this we can use cloths, muslin bandages, muslin pads, cotton tampons, and sponges, moistened with natron or soda solution (even with water), which are firmly tied on the mouth and nose. The same materials also provide stopgap protection against biological and chemical weapons.

Eyes may be protected by any kind of tight-fitting spectacles, used on motorcycles or for diving, for instance.

We already know that there are not only chemical substances which can penetrate the organism through the respiratory organs and damage it but also liquid substances which are injurious to the skin. When they touch a human body they eat away the skin and get into the bloodstream that way. This poisons the organism or affects the nervous system.

This similarly applies also to radioactive substances. They too injure human beings when they touch the organism or the skin. For this reason we must understand that protection of the respiratory system nowadays no longer suffices. Rather, we will have to protect unprotected parts of the body, such as throat, neck, hands, and others, against liquid and gaseous chemical as well as radioactive substances. In this respect we must note that normal clothing hardly offers any protection from chemical substances since they quickly penetrate any fabric.

For this reason, one has developed and tested in the past various types of protective clothing made of rubber, rubberized fabrics, and impregnated paper and foil as protection against radioactive and chemical weapons.

The most important pieces of protective clothing are protective capes, gloves, stockings, aprons, overalls, and suits.

(Show visual aid poster "Individual Means of Protection,"

VIII/1)

Such protective clothing is issued primarily to members of the services, especially of the chemical service, that is to say to persons who in line of duty have to spend a longer period of

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time in poisoned or radioactively contaminated areas. These are the people who have to carry out aid and rescue operations right after an attack with A-B-C-weapons.

These persons also have the task of carrying out the chemical and radiological probes, either special equipment, so as to find out how far a poisoned or radioactively contaminated area extends and which method of getting the people away from the affected area recommends itself. And then they also handle the de-poisoning and de-contamination work.

A few more words on the protective clothing mentioned. Protective aprons and overalls, together with protective gloves and stockings, are worn chiefly during de-poisoning and de-contamination work. The protective suit, which hermetically seals off the whole body, is worn during chemical and radiological probes as well as during the actual work in strongly poisoned or radioactively contaminated areas. The protective cape, consisting of foil or impregnated paper and resembling a rain cape, is mainly worn to pass through poisoned or radioactively contaminated sectors. All citizens who are not directly recruited for work in an affected area must use makeshift protective devices.

(Show visual aid poster "Individual Means of Protection"
VIII/5)

As liquidproof fabrics prevent substances mentioned above from entering the skin, one may wear as stopgap protective clothing rain coats, rain capes, leather coats, motorcycle outfits, and covers made of rubber, plastics, oilcloth, or canvas. Table cloths made of this kind of material also serve good purposes. Stopgap protective clothing, while it offers no complete protection, still is better than ordinary clothing. One should know that liquid chemicals take five times as long in getting into the skin when one wears rubberized rain capes or coats than when one wears an ordinary interseasonal coat.

Cotton wool materials also, as worn in wintertime against the cold, have good emergency protection properties. In an extreme emergency, several, possibly heavy, pieces of clothing on top of one another also offer some protection.

For the protection of feet, one may make out with rubber boots, galoshes, especially heavy footwear such as ski boots, wooden shoes, felt-boots, or shoes with wooden soles. In dire need, one may wrap plastics, oilcloth, canvas, or other firm materials around ordinary footwear. In an extreme case, one may tie small wooden boards under the shoes.

Legs may be strapped with rags or cloths wrapped in several layers of newspaper.

To protect the hands, one may use rubber or leather gloves, thick worsted gloves, or imitation leather gloves as used on motorcycles or gloves made of other heavy material.

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In using emergency protective clothing one has to see to it that it is tight-fitting so that substances are kept from attacking the skin. It is, therefore, advisable to turn up the collars of coats or capes and wrap a scarf or kerchief around. Women are advised to wear ski or ordinary long trousers. Infants, if possible, are to be wrapped into quilts, blankets or other cloths and to be carried out of the poisoned or radioactively contaminated area.

To some extent, cloaks from heavy material as any housewife can sew them herself offer a minimum of protection. If they consist of white fabric they even offer some protection against heat radiation which follows an atomic blast because the white color reflects these rays.

As the devices enumerated offer merely makeshift protection, the poisoned or radioactively contaminated area must under all conditions rapidly be abandoned, in a right angle to the direction of the wind. After one has left the danger zone one should take off the makeshift protective devices.

Persons affected must then go, directly and rapidly, to the nearest first aid station for treatment. Normally, such a first aid station will be established in a bathroom or lavatory of an enterprise. The persons concerned are bathed here or given a shower and examined by trained medical personnel for any injuries. If this should not be possible, every individual himself must try to dab any spot touched by chemical or radioactive materials. Radioactive materials can be washed off well with water. In using water one should see to it that it itself is not radioactively contaminated.

This ends our detailed discussion of collective and individual means of protection.

IV

Concluding Remarks

Today's topic, essentially, familiarized you with practical measures in the field of collective and individual means of protection. Not all questions could be dealt with exhaustively. Primarily, you were to get the idea that even when the dangerous means of mass destruction are used, the results of enemy attack can be reduced and human life can be saved once the necessary information on all existing means of protection has been mastered.

The effectiveness of protection would depend on the degree of organized utilization of all existing possibilities. Organized protection requires many people's cooperation. For this reason, you must support your plant executive in these matters. This can only be done through active cooperation with the services and units of the civil defense organization in the enterprises and through the extended self-protection. It is important that all workers think about preparing their place of work along civil defense lines, i.e., measures have to be taken in the service of protecting the labor force and material values.

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For instance, one must consider which preparations are to be made for first aid and which possibilities exist for decontamination and clarification activities. Find out whether old civil defense equipment exists that could be rehabilitated through volunteer work, which additional materials are to be used for the personal protection of the workers, and how within the plant all internal reserves are to be exploited by means of which some supply of protective devices can be stocked. In residential areas, there is the opportunity to work together with the organization of civil defense volunteers and in the self-protection units.

All problems can be solved if you are personally inspired by the desire and the unbending will to protect what we have built up. Each one of you must feel responsible for setting up the necessary protective devices in his apartment, his house, his block, and his place of work. That will also make him fulfill his duty toward the life of his family and toward the German Democratic Republic.

Direction for Instructors:

1.) Methodology

Instructors are advised to watch the following aspects during the lecture:

If the lecturer does not understand any part of the presentation (concepts) as presented by the instructional material available to him, he should be advised to inquire from civil defense organizations about such parts.

In studying (preparing) the material, charts concerned are to be consulted.

Certain difficult arguments or presentations are to be repeated.

A study session is to last 50 minutes; after that there should be a 10-minute break. At the beginning of a subject, the structure of it is to be announced.

During his lecture, the instructor should permit no interruptions. Questions are to be answered at the end of a session.

When questions are asked by students, the following should be observed:

a) The instructor should answer only questions in which he is versed; he should refrain from guesswork.

b) When things are not clear, the instructor should get a clarification from civil defense authorities. When explanations, references, corrections, etc. have to be given, they may be posted in enterprises, administrations, schools, etc., on bulleting boards or given through the intercom system.

2.) Bibliography

a) Civil defense textbook Lehrbuch ueber den Luftschutz, Sections III and V, Ministry of Interior Publishing House.

b) Gas protection pamphlet "Der Gasschutz" Section IV, firefighting series, vol. 5, Ministry of Interior Publishing House.

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c) DV 66/6 Handbook for civil defense noncoms, Handbuch des Unteroffiziers fuer Schutzausbildung, Ministry of Interior Publishing House.

3.) On using visual aids

The following visual aids of civil defense may be used with the above topic:

- a) Poster VI/1 and VI/2 "Collective Means of Protection"
- b) Poster VIII/1, VIII/3, VIII/4 "Individual Means of Protection"

4.) On using visual aids which either are available or can be procured:

Fire department gas masks and other makeshift materials for the protection of the respiratory organs (see lecture)

5.) On rendering the account concrete:

The lecturer must render the account concrete for any type of audience. For instance, for an enterprise, he may ask: "Which former shelters or which parts of the basement can be rehabilitated or further developed through the help of the labor force?" An agricultural audience he may ask (as often there are not enough basements for protecting the population): "At which spots can, in an emergency, shelter trenches be dug with the help of the population?"

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